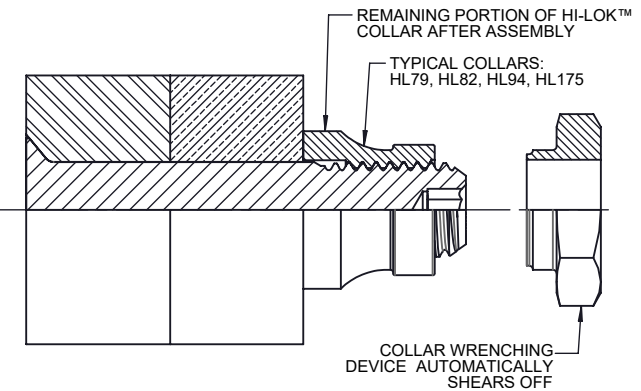
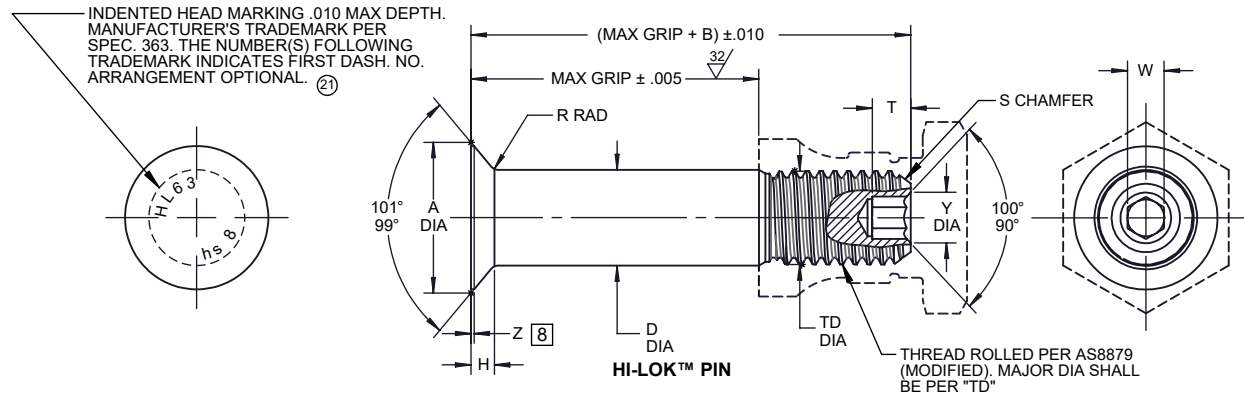


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### HI-LOK™ PIN AND COLLAR AFTER ASSEMBLY

SEE COLLAR STANDARDS  
FOR COLLAR STRENGTHS.  
LOWER STRENGTH (PIN OR  
COLLAR) DETERMINES  
SYSTEM STRENGTH

| [1]                  |                   |                  |          |                  |                |                                         |                |              |          |                     |                      |                |              |              |                                      | [8]                          |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------|-------------------|------------------|----------|------------------|----------------|-----------------------------------------|----------------|--------------|----------|---------------------|----------------------|----------------|--------------|--------------|--------------------------------------|------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| FIRST<br>DASH<br>NO. | PIN<br>NOM<br>DIA | A<br>DIA         | B<br>REF | D<br>DIA         | TD<br>DIA      | F                                       | H              | R<br>RAD     | Z<br>MAX | S<br>CHAMFER<br>REF | THREAD<br>MODIFIED   | SOCKET         |              |              | DOUBLE<br>SHEAR<br>POUNDS<br>MINIMUM | TENSION<br>POUNDS<br>MINIMUM |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                      |                   |                  |          |                  |                |                                         |                |              |          |                     |                      | W<br>HEX       | T<br>DEPTH   | Y<br>DIA     |                                      |                              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 5                    |                   |                  |          |                  |                | NOTE: USE HL19( )6-( ) or HL419( )6-( ) |                |              |          |                     |                      |                |              |              |                                      |                              |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 6                    | 13/64             | .3016<br>.2966   | .325     | .2026<br>.2016   | .1840<br>.1810 | .005                                    | .0415<br>.0394 | .030<br>.020 | .015     | 1/32 x 45°          | .1900-32<br>UNJF-3A  | .0806<br>.0791 | .135<br>.115 | .119<br>.104 | 6,130                                | 2,000                        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 8                    | 17/64             | .3948<br>.3898   | .395     | .2651<br>.2641   | .2440<br>.2410 | .006                                    | .0544<br>.0523 | .030<br>.020 | .015     | 1/32 x 45°          | .2500-28<br>UNJF-3A  | .0967<br>.0947 | .150<br>.130 | .142<br>.122 | 10,490                               | 3,700                        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 10                   | 21/64             | .4739<br>.4689   | .500     | .3276<br>.3266   | .3060<br>.3020 | .007                                    | .0614<br>.0593 | .040<br>.030 | .015     | 3/64 x 45°          | .3125-24<br>UNJF-3A  | .1295<br>.1270 | .170<br>.150 | .180<br>.160 | 16,000                               | 5,000                        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 12                   | 25/64             | .5604<br>.5554   | .545     | .3901<br>.3891   | .3680<br>.3640 | .008                                    | .0714<br>.0693 | .040<br>.030 | .015     | 3/64 x 45°          | .375-24<br>UNJF-3A   | .1617<br>.1582 | .200<br>.180 | .217<br>.197 | 22,700                               | 7,200                        |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 14                   | 29/64             | .6680<br>.6620   | .635     | .4526<br>.4516   | .4310<br>.4260 | .009                                    | .0904<br>.0879 | .050<br>.040 | .022     | 3/64 x 45°          | .4375-20<br>UNJF-3A  | .1930<br>.1895 | .230<br>.210 | .253<br>.233 | 30,600                               | 10,000                       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 16                   | 33/64             | .7540<br>.7480   | .685     | .5151<br>.5141   | .4930<br>.4880 | .010                                    | .1002<br>.0977 | .050<br>.040 | .022     | 3/64 x 45°          | .5000-20<br>UNJF-3A  | .2242<br>.2207 | .260<br>.240 | .289<br>.269 | 39,600                               | 13,500                       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 18                   | 37/64             | .8380<br>.8310   | .770     | .5771<br>.5761   | .5550<br>.5500 | .010                                    | .1094<br>.1065 | .050<br>.040 | .022     | 1/16 x 45°          | .5625-18<br>UNJF-3A  | .2555<br>.2520 | .290<br>.270 | .326<br>.306 | 49,700                               | 17,000                       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 20                   | 41/64             | .9250<br>.9180   | .825     | .6396<br>.6386   | .6180<br>.6120 | .010                                    | .1197<br>.1168 | .050<br>.040 | .022     | 1/16 x 45°          | .6250-18<br>UNJF-3A  | .2555<br>.2520 | .330<br>.305 | .326<br>.306 | 61,000                               | 21,000                       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 24                   | 49/64             | 1.0970<br>1.0850 | 1.050    | .7646<br>.7636   | .7430<br>.7370 | .012                                    | .1394<br>.1344 | .050<br>.040 | .022     | 1/16 x 45°          | .7500-16<br>UNJF-3A  | .3185<br>.3150 | .395<br>.365 | .398<br>.378 | 87,200                               | 30,700                       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 28                   | 57/64             | 1.3197<br>1.3030 | 1.210    | .8896<br>.8886   | .8680<br>.8610 | .014                                    | .1804<br>.1734 | .050<br>.040 | .022     | 5/64 x 45°          | .8750-14<br>UNJF-3A  | .3820<br>.3780 | .455<br>.425 | .471<br>.451 | 118,000                              | 42,000                       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 32                   | 1-1/64            | 1.5186<br>1.4995 | 1.390    | 1.0146<br>1.0136 | .9930<br>.9860 | .014                                    | .2114<br>.2034 | .050<br>.040 | .022     | 5/64 x 45°          | 1.0000-12<br>UNJF-3A | .5100<br>.5040 | .580<br>.550 | .618<br>.598 | 154,000                              | 55,000                       |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

"HI-LOK", "HL", AND "HI-KOTE",  
ARE TRADEMARKS OF HI-SHEAR CORPORATION

|                    |                              |                                                                                                    |  |
|--------------------|------------------------------|----------------------------------------------------------------------------------------------------|--|
| DRAWN BY<br>BRIEJ  | DATE<br>1963-05-02           | TITLE<br>HI-LOK™ PIN<br>100° FLUSH SHEAR HEAD<br>ALLOY STEEL<br>1/16 GRIP VARIATION, 1/64 OVERSIZE |  |
| APPROVED<br>CESSNA | DATE<br>1963-11-01           | DRAWING NUMBER<br><b>HL63</b>                                                                      |  |
| REVISION<br>(21)   | DATE<br>B.CHAN<br>2021-07-01 | 1 OF 2                                                                                             |  |

- GENERAL NOTES:**
- 1 Head edge out of roundness shall not exceed "F".
  2. Concentricity: Conical surface of head to "D" diameter within .005 FIM.
  3. "H" is dimensioned from maximum "D" diameter.
  4. Dimensions are in inches and to be met after finish.
  5. Surface texture per ASME B46.1.
  6. Hole preparation per NAS618.
  7. Use HL219 for oversize replacement.
  - 8 Curved or flat edge manufacturer's option.

**MATERIAL:** Alloy steel per AMS6415, AMS6349, or AMS-S-6049.

**HEAT TREAT:** 95,000 psi shear minimum (160,000-180,000 psi tensile per AMS-H-6875).

**FINISH:**

HL63-( )-( ) = Cadmium plate per AMS-QQ-P-416, Type I, Class 2, and  
 cetyl alcohol lube per Hi-Shear Spec. 305.

HL63A( )-( ) = Cadmium plate per AMS2400-3 and cetyl alcohol lube per  
 Hi-Shear Spec. 305.

HL63PB( )-( ) = Cadmium plate per AMS-QQ-P-416, Type II, Class 2, and  
 cetyl alcohol lube per Hi-Shear Spec. 305.

② HL63UC( )-( ) = Cadmium Plate Per AMS-QQ-P-416, Type II, Class 2, and  
 Cetyl alcohol lube per Hi-Shear Spec. 305, green on thread end

**SPECIFICATION:** HI-LOK™ Product Specification 342.

**CODE:** First dash number indicates nominal diameter in 1/32nds  
 of the pin which HL63 oversize pin replaces.  
 Second dash number indicates maximum grip in 1/16ths.  
 See Finish note for explanation of code letters.

**HOW TO ORDER**

**EXAMPLE:**

Pin Part Number  
 HL63PB8-8

└─ 8/16 or 1/2 Maximum Grip Length  
 └─ Replaces 8/32 or 1/4 Nominal Diameter Pin  
 └─ Finish Code  
 └─ Pin Basic Part Number

Pin and Collar Assembly Part Number Combination  
 HL63PB79-8-8

└─ Size and Grip Length, See Above Example  
 └─ Collar Part Number  
 └─ Pin Finish  
 └─ Pin Part Number